

## Laboratory

## **BARIUM**

**Agent Overview:** Barium is a metal that can cause severe medical complications if

ingested at high levels. Nausea, vomiting, and profuse watery diarrhea occur rapidly after exposure, intentional or accidental ingestion of soluble barium salts. Severe exposure symptoms can include severe muscle weakness, respiratory arrest, coma, cardiac arrhythmia, hypertension, severe hypokalemia, or electrolyte imbalance.

Barium sulfate is *not* absorbed when taken by mouth and is commonly

used as a contrast agent for radiographic procedures.

**Lab Specimen Submittal:** Authorization by Dr. Jane Getchell, Director DPHL, Christina

Pleasanton, Deputy Director DPHL, or, Tara Lydick, Chemical

Terrorism Coordinator

**Type of Specimens** <u>Urine</u>: 25mL-50mL screw-cap container

Necessary for Testing: Whole blood:

- Three, 5 or 7 mL purple-top (EDTA) tubes (vacuum fill only) AND

- One, 5 or 7 mL gray-top or green-top (vacuum fill only) AND

- Two empty urine cups and two empty blood tubes for each lot #

submitted.

Packaging Instructions: <u>Urine</u>: freeze specimen upon collection and ship on dry ice; label

specimens and package individually; wrap with absorbent material.

<u>Whole blood</u>: place filled tubes in a shipping rack for stability, wrap the tubes in absorbent material, and secure with tape. Place the packaged

tubes in a secondary unbreakable container. Specimens may be

shipped cold but *must not* be frozen.

<u>All:</u> wrap sample containers and layers with tamper-proof, waterproof forensic evidence tape initialed by collector, being careful not to cover the sample labels. Ship to DPHL as Biological Substance, Category B

(Packing Instruction 650).

**Receiving Specimens** 

at DPHL:

Authorized specimens are received at the rear (loading dock) entrance of the laboratory. Submitters must present ID and have proper forms

completed.

completed

Handling of Specimens: Chain of custody procedures must be followed. Urine specimens

should be frozen upon collection.

**Reporting Results:** DPHL is a Qualified Trace and Toxic Metals Laboratory. Testing

personnel will notify supervisor or Laboratory Director, Deputy

Laboratory Director or Chemical Terrorism Coordinator. The Potential Exposure Call Log and Information form will provide information for

notification of testing results outside of the DPHL.

**Contact Information:** Jane Getchell, DrPH, Director DPHL, 302-223-1520 (24/7 coverage)

24/7 Emergency Contact Number: 1-888-295-5156

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